

MSD

December 11, 1997

Ms. Liza I. Montalvo
Remedial Project Manager
Kentucky/Tennessee Section
U. S. EPA
Region IV
61 Forsyth Street
Atlanta, GA 30303

Re: Results of Air Quality Monitoring - FY97 Fourth (FY97-4Q), (Event No. 19)
Lees' Lane Superfund Site, Jefferson County, Kentucky Administrative Order on
Consent, U. S. EPA Docket No. 91-32-C

Dear Ms. Montalvo:

In accordance with paragraph 11, under, Reporting Requirement, of the subject Consent Order and Attachment I, Operation and Maintenance Plan for Post-Removal Site Control at the Lees' Lane Landfill Site, Section 4.2, Air Quality Monitoring, attached for your information and files is one photocopy each of the following items, prepared by Radian Corporation, P. O. Box 13000, Research Triangle Park, North Carolina 27709, and received by MSD on December 4, 1997.

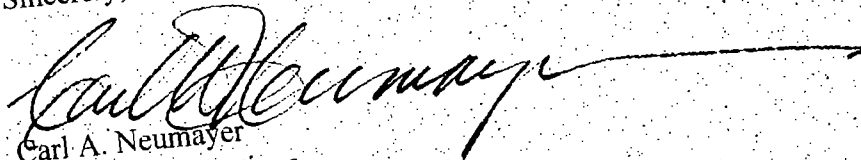
1. Radian Corporation letter, dated November 26, 1997, 2 pages.
2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1 page.
3. Table 1, TO-14 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: 6/25/97, 1 page.
4. Table 2, On-Site Meteorological Data, 6/25/97, 1 page.
5. Table 3, TO-14 Data Summary for Gas Monitoring Well Samples at Lee's Lane Landfill, Louisville, KY, Sampling Date: 6/25/97, 1 page.



Ms. Lisa Montalvo
December 11, 1997
Page 2

Please advise if you have any questions concerning the attached information.

Sincerely,



Carl A. Neumayer
Director of Operations

CAN/dc
Lee'sair4q97

cc: Mr. Jeff Pratt, KNREPC,
Division of Waste Management
Mr. Rick Hogan, KNREPC
Division of Waste Management
G. R. Garner, Executive Director
File: WD-2 (Lees' Lane M & M Quarterly)

219116.2101

November 26, 1997

RADIAN
INTERNATIONAL llc

P.O. Box 13000

Research Triangle Park, NC 27709

(919) 461-1100

FAX (919) 461-1415

Mr. Dan Sammons
Chief Chemist
Louisville Metropolitan Sewer District
4522 Algonquin Parkway
Louisville, KY 40211

Dear Dan:

Enclosed is the *revised final* summary analytical report for the ambient and gas monitoring well samples collected at the Lee's Lane Landfill site on 25 June 1997 (**Quarter 19**). This data was discussed in draft form (transmitted electronically) in September of this year. Our correspondence records do not indicate an official transmittal of the final data package to your office. If this is indeed the case, Radian apologizes for the oversight.

The data contained in this package has been subject to an intensive scrutiny during the QC review process due to the higher than normal values in several samples.

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary for the ambient sample with the primary analytes required for submission to EPA. The ambient sample (A-1) was voided during the analysis process due a power failure in the laboratory which caused the sample to be compromised. The sample A-2 was collocated and will provide adequate data for the purposes of this program.

The monitoring sites for this quarterly collection were chosen based on a combination of prevailing on-site meteorology and available sites in the adjacent residential neighborhood per the standard sampling protocol. It was warm for most of the monitoring day with gusty southwest winds. Meteorological data readings on-site were invalid due to equipment malfunction, therefore the information displayed in Table 2 was obtained from the Louisville airport's National Weather Station. The ambient samples were collected 3-5 feet above ground level. The ambient samples collected were integrated over a 7-8 hour collection period in Summa® canisters.

The methane analysis was performed by GC/FID on a separate analytical system prior to the TO-14 analysis at Radian's Austin Laboratory. The TO-14 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total nonmethane hydrocarbons prior to field deployment. Twelve of the thirteen samples were successfully analyzed for methane and the TO-14 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal Radian required specifications. The field blank collected indicated

Mr. Dan Sammons
November 26, 1997
Page 2

quantifiable amounts of the target analytes, but not at a level that would invalidate the reported data. All analytes reported have not been blank corrected.

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. The gas monitoring wells were screened with portable survey type instruments prior to field sample collection. The laboratory determined methane results for well samples G1 were extremely high. The reported results are from a thermoconductivity detector rather than the standard FID detector normally employed for this analyte on this program. The upper calibration range for the FID analysis was exceeded, hence the need for the alternative analytical detector. The laboratory result correlates with the field OVA's reading of >1,000 ppm. This is the second consecutive quarter where the methane values for this gas well location has exceeded typical background levels. Most of the targeted compounds (TO-14) for Well G-1 and Well G-2 were significantly above the other tested wells. The cause of the higher readings should be investigated by LMSD staff prior to the next sampling event.

A number of TO-14 compounds were detected in both the ambient and gas well sample with the highest number and highest values reported from gas well G-1 and G-2. Program analytes, benzene, toluene, total xylenes, and methylene chloride were detected in all 12 valid field samples. A detailed review of the entire data package has been conducted to verify the validity of the reported data. This internal review has not indicated any significant procedural error to disqualify the reported results.

Radian appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,



Robert F. Jongleux
Project Manager

RFJ/Task 20

Enclosure

c: M. McCoy, Radian/RTP
Project File/Task 20

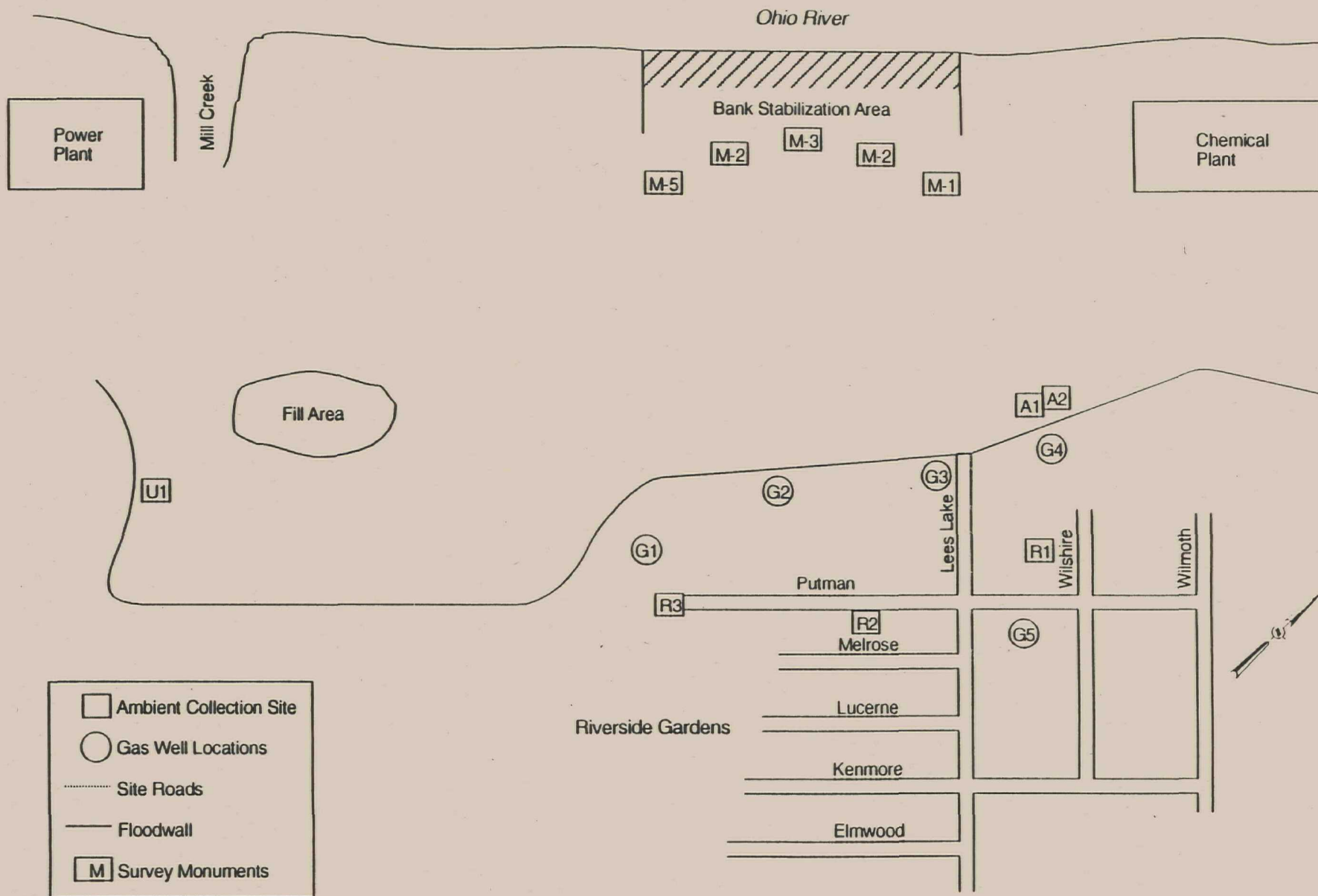


Figure 1. Lees Lane Landfill Sampling Locations

TABLE 1

**TO-14 DATA SUMMARY FOR AMBIENT
AIR SAMPLES AT THE LEE'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 25 June 1997

Sample ID	Ambient Air Samples					
	U1	A1	A2	R1	R2	R3
Canister ID	A193109	A193100	A193105	A193107	A193110	A193221
Dilution Factor	0.2698	Void	0.3065	0.3347	0.2456	0.2711
Location	Upwind	On-site	On-site (dup)	Residential	Residential	Residential
Veriflow ID	A168513	A168514	A134133	A134135	A133240	A134131
Compound (ppbV)						
Benzene	7.02	Void	0.55	1.24	0.65	3.93
Methylene chloride	0.86	Void	4.05	11.10	0.62	0.44
Toluene	11.30	Void	5.90	22.80	1.15	11.80
Vinyl chloride	<0.01	Void	<0.01	<0.01	<0.01	<0.01
Xylene (Total)	10.54	Void	0.95	3.48	0.66	10.16
Methane (ppmV)	0.75	Void	5.34	4.80	0.82	0.75

TABLE 2

LOCAL METEOROLOGICAL DATA
25-Jun-97

Time (Local)	Barometric Pressure (inches Hg)	Temperature (F)	Dewpoint (F)	Wind Direction (from)	Wind Speed (knots)	Observation
0800	30.08	79	75	S	8	Sunny
0900	30.09	80	76	SW	9	Sunny
1000	30.09	82	76	SW	13	Sunny
1100	30.09	85	76	SW	10	Partly Cloudy
1200	30.09	86	77	SW	12	Mostly Cloudy
1300	30.07	87	77	S	17	Partly Cloudy
1400	30.05	88	76	W	13	Partly Cloudy
1500	30.03	89	76	W	14	Partly Cloudy
1600	30.01	90	75	SW	14	Partly Cloudy
1700	29.99	90	76	S	15	Partly Cloudy

Source: National Weather Service, Louisville Ky.

TABLE 3

**TO-14 DATA SUMMARY FOR GAS MONITORING
WELL SAMPLES AT THE LEE'S LANE LANDFILL
LOUISVILLE, KENTUCKY**

SAMPLING DATE: 25 June 1997

Sample ID	Well Samples						BLANK
	G1	G2	G3	G4	G5-L	G5-R	
Canister ID	A193111	A193112	A193106	A193099	A193108	A193104	A130682
Dilution Factor	0.1236	0.0865	0.3685	0.3763	0.3773	0.3743	0.3666
Orifice	D-104	D-3	B-1	D-8	D-9	D-33	N/A
Compound (ppbV)							
Benzene	0.85	0.38	0.17	0.26	0.40	0.05	0.18
Methylene chloride	4.02	1.47	0.76	1.25	0.92	0.28	0.446
Toluene	4.82	1.68	0.68	4.27	2.68	0.51	0.49
Vinyl chloride	1.19	12.80	<0.01	<0.01	0.05	<0.01	<0.01
Xylene (Total)	3.45	2.51	0.46	0.74	0.89	0.27	0.28
Methane (ppmV)	15.8%	4.98	5.03	4.81	4.60	2.85	<0.01

G1-Methane analysis confirmed by TCD - due to high concentration which exceed upper calibration range of standard FID analysis